

RECEIVED

APR 01 2004

TECHNOLOGY CENTER R3700



Please type a plus sign (+) inside this box →

PTO/SB/01 (10-00)

Approved for use through 10/31/2002. OMB 0651-0032

Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)

Declaration Submitted with Initial Filing      OR       Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	OSU1159-148B
First Named Inventor	Rizzoni et al.
COMPLETE IF KNOWN	
Application Number	10 / 092,031
Filing Date	March 5, 2002
Group Art Unit	3747
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ENGINE CONTROL USING TORQUE ESTIMATION

(Title of the Invention)

the specification of which

is attached hereto

OR

was filed on (MM/DD/YYYY)  as United States Application Number or PCT International

Application Number  and was amended on (MM/DD/YYYY)  (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?
			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
60/273,423	03/05/2001	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

(Page 1 of 2)

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

## DECLARATION — Utility or Design Patent Application

Direct all correspondence to:  Customer Number  
or Bar Code Label 08698 OR  Correspondence address below

Name

Address

Address

City

State

ZIP

Country

Telephone

Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR	<input type="checkbox"/> A petition has been filed for this unsigned inventor		
--------------------------------	---	--	--

Given Name (first and middle [if any]) Giorgio	Family Name or Surname Rizzoni		
---	-----------------------------------	--	--

Inventor's Signature 	Date <u>3/1/04</u>		
---	--------------------	--	--

Residence: City Upper Arlington	state Ohio	Country U.S.A.	Citizenship Italy
---------------------------------	------------	----------------	-------------------

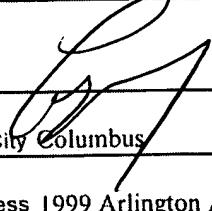
Mailing Address 1938 Concord Road

Mailing Address

City Upper Arlington	State Ohio	ZIP 43212	Country U.S.A.
----------------------	------------	-----------	----------------

NAME OF SECOND INVENTOR:	<input type="checkbox"/> A petition has been filed for this unsigned inventor		
--------------------------	---	--	--

Given Name (first and middle [if any]) Yann	Family Name or Surname Guezennec		
--	-------------------------------------	--	--

Inventor's Signature 	Date <u>3/1/04</u>		
---	--------------------	--	--

Residence: City Columbus	State Ohio	Country U.S.A.	Citizenship France
--------------------------	------------	----------------	--------------------

Mailing Address 1999 Arlington Avenue

Mailing Address

City Columbus	State Ohio	ZIP 43212	Country U.S.A.
---------------	------------	-----------	----------------

Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

RECEIVED

APR 01 2004

TECHNOLOGY CENTER R3700

Please type a plus sign (+) inside this box →



O I P E J C D Y  
M A R 2 9 2004  
U. S. P A T E N T & T R A D E M A R K O F F I C E  
U. S. P A T E N T & T R A D E M A R K O F F I C E

PTO/SB/02A (1-00)

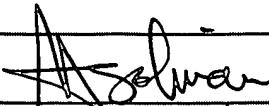
Approved for use through 10/31/2002, OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## DECLARATION

**ADDITIONAL INVENTOR(S)**  
 Supplemental Sheet  
 Page 1 of 1

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Ahmed		Soliman	
Inventor's Signature			Date 3/1/04
Residence: City Upper Arlington	State Ohio	Country U.S.A.	Citizenship Egypt
Mailing Address 1834 Elmwood Avenue			
Mailing Address			
City Upper Arlington		State Ohio	ZIP 43212
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Byungho		Lee	
Inventor's Signature			Date 3/1/04
Residence: City Columbus	State Ohio	Country U.S.A.	Citizenship Republic of Korea
Mailing Address 709 Carpenter Ridge BL			
Mailing Address			
City Columbus		State Ohio	ZIP 43228
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature			Date
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box-> +

PTO/SB/81 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035

Patent and Trademark Office- U S DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	10/092,031
Filing Date	03/05/2002
First Named Inventor	Giorgio Rizzoni et al.
Group Art Unit	3747
Examiner Name	
Attorney Docket Number	OSU1159-148B

I hereby appoint:

Practitioners at Customer Number

08698



Place Customer  
Number Bar Code  
Label here

OR

Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

The above-mentioned Customer Number.

RECEIVED

OR

Firm or Individual Name

APR 01 2004

Address

TECHNOLOGY CENTER R3700

Address

City

State

ZIP

Country

Telephone

Fax

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

### SIGNATURE of Applicant or Assignee of Record

Name Byungho Lee

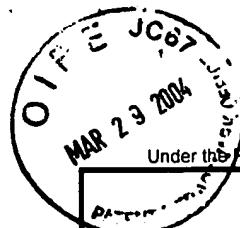
Signature Byungho Lee

Date 3/1/04

Note: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.\*

\*Total of 4 forms are submitted.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTO/SB/96 (04-03)

Approved for use through 04/30/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: The Ohio State University

Application No./Patent No.: 10/092,031 Filed/Issue Date: March 3, 2002

Entitled: ENGINE CONTROL USING TORQUE ESTIMATION

The Ohio State University, a non-profit organization  
(Name of Assignee) (Type of Assignee, e.g. corporation, partnership, university, government agency, etc.)

states that it is:

- the assignee of the entire right, title, and interest; or
- an assignee of less than the entire right, title and interest.

The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded  
in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown  
below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document)  
must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be  
recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

3/11/04

Date

614-792-5555

Telephone number

Ellen Purpus, Ph.D.

Typed or printed name

Ellen Purpus

Signature

Director

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450 Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

MAR 29 2004 RECORDATION FORM COVER SHEET  
PATENTS ONLYU.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

Tab settings

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Byungho Lee  
 Giorgio Rizzoni  
 Yann Guezennec  
 Ahmed Soliman

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger         |
| <input type="checkbox"/> Security Agreement    | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Other.....            |   |

Execution Date: 03/01/2004

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: .....

A. Patent Application No.(s) - - - - - 10/092,031

B. Patent No.(s) - - - - -

Additional numbers attached?  X  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Jeffrey S. Standley, Standley Law Group LLP

Internal Address: .....

Street Address: 495 Metro Place South, Suite 210

City: Dublin, State: Ohio Zip: 43017

6. Total number of applications and patents involved 1

7. Total fee (37 CFR 3.41) \$40.00

 Enclosed Authorized to be charged to deposit account

## 8. Deposit account number:

DO NOT USE THIS SPACE

## 9. Signature.

CAROL G. STOVSKY

Name of Person Signing

*Carol G. Stovsky*  
Signature

March 17, 2004

Date

4

Total number of pages including cover sheet, attachments, and documents:

Mail documents to be recorded with required cover sheet information to:  
 Mail Stop Assignments Recordation Services, Commissioner of Patents  
 P.O. Box 1450, Alexandria, VA 22313-1450.

**ASSIGNMENT**

This assignment is made by Byungho Lee, residing at 709 Carpenter Ridge  
City of Columbus, State of Ohio 43228 [zip code]; Giorgio Rizzoni, residing at  
1938 Concord Rd. City of Upper Arlington State of Ohio 43212  
[zip code]; Yann Guezennec, residing at 1999 Arlington Ave. City of  
Upper Arlington State of Ohio 43212 [zip code]; and Ahmed Soliman, residing at  
1834 Elmwood Ave. City of Upper Arlington State of Ohio 43212  
[zip code] ("ASSIGNORS") to The Ohio State University, a non-profit organization organized under  
the laws of the State of Ohio and having an office at 1960 Kenny Road, City of Columbus, State of  
Ohio 43210-10963 (ASSIGNEE").

FOR ONE U.S. DOLLAR (\$1.00) AND FOR OTHER GOOD AND VALUABLE  
CONSIDERATION, the receipt of which is hereby acknowledged, ASSIGNORS do hereby sell,  
assign and transfer to ASSIGNEE the entire right, title and interest, together with all rights of  
priority, in and to our invention entitled ENGINE CONTROL USING TORQUE ESTIMATION, as  
described and/or claimed in an application for patent of the United States of America, Serial No.  
10/092,031.

ASSIGNORS further do hereby sell, assign and transfer to ASSIGNEE the entire right, title  
and interest, together with all rights of priority, in and to ASSIGNORS' invention as described  
and/or claimed in any and all applications for patents based on the invention, including divisionals,  
continuations, renewals, substitutes and reissues thereof, and all rights of priority resulting from any  
of these patent applications, as well as all foreign counterparts and extensions thereof, together with  
all patents issuing on any of these applications for the full terms of all of the patents which may be  
granted on the invention.

ASSIGNORS HEREBY AUTHORIZE ASSIGNEE to make applications for, to prosecute  
such applications, and to receive patents for the invention in the United States and any foreign  
countries, in ASSIGNEE's name.

ASSIGNORS HEREBY PROMISE AND AGREE that ASSIGNORS will execute or  
procure any further necessary assurance of title to the invention and any patents which may issue on  
the invention. ASSIGNORS will, at any time, upon the request and without further consideration,  
but at the expense of ASSIGNEE, deliver any testimony in any legal proceedings and execute all  
papers and do all other things that may be necessary or desirable to perfect the title to the invention,  
or any patents which may be granted therefor, in ASSIGNEE, its successors, assigns, or other legal

representatives. ASSIGNORS will, at any time, upon the request and at the expense of ASSIGNEE, execute any continuations, divisionals, reissues, or any other additional applications for patents for the invention or any part or parts thereof and any patents issuing thereon are hereby assigned to ASSIGNEE. ASSIGNORS will make all rightful oaths, and do all lawful acts required for procuring and enforcing any of the patents, without further compensation, but at the expense of ASSIGNEE, its successors, assigns or other legal representatives.

ASSIGNORS HEREBY AUTHORIZE AND REQUEST the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States for the invention, resulting from any of the aforesaid applications to the ASSIGNEE.



BYUNGHO LEE, ASSIGNOR

STATE OF OHIO :  
COUNTY OF FRANKLIN : SS:

Before me personally appeared **BYUNGHO LEE**, to me known to be the same person described in and who executed the foregoing instrument, and acknowledged that he executed the same, of his own free will and for the purposes set forth.

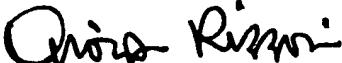
Sworn to before me and subscribed in my presence this 1 day of March, 2004.



Lynn A Royer  
Notary Public, State of Ohio  
My Commission Expires 6/15/06



Notary Public



GIORGIO RIZZONI, ASSIGNOR

STATE OF OHIO :  
COUNTY OF FRANKLIN : SS:

Before me personally appeared **GIORGIO RIZZONI**, to me known to be the same person described in and who executed the foregoing instrument, and acknowledged that he executed the same, of his own free will and for the purposes set forth.

Sworn to before me and subscribed in my presence this 1 day of March, 2004.



Lynn A Royer  
Notary Public, State of Ohio  
My Commission Expires 6/15/06

Notary Public



ASSIGNORS HEREBY AUTHORIZE AND REQUEST the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States for the invention, resulting from any of the aforesaid applications to the ASSIGNEE.



Lynn A Royer  
Notary Public, State of Ohio  
My Commission Expires 6/15/06

STATE OF OHIO

COUNTY OF FRANKLIN

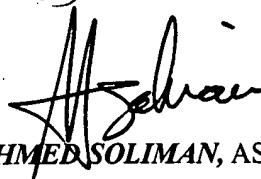
: SS:

  
YANN GUEZENNEC, ASSIGNOR

Before me personally appeared **YANN GUEZENNEC**, to me known to be the same person described in and who executed the foregoing instrument, and acknowledged that he executed the same, of his own free will and for the purposes set forth.

Sworn to before me and subscribed in my presence this 1<sup>st</sup> day of March, 2004.

  
Lynn A Royer  
Notary Public

  
AHMED SOLIMAN  
AHMED SOLIMAN, ASSIGNOR

STATE OF OHIO

COUNTY OF FRANKLIN

: SS:

Before me personally appeared **AHMED SOLIMAN**, to me known to be the same person described in and who executed the foregoing instrument, and acknowledged that he executed the same, of his own free will and for the purposes set forth.

Sworn to before me and subscribed in my presence this 1<sup>st</sup> day of March, 2004.



Lynn A Royer  
Notary Public, State of Ohio  
My Commission Expires 6/15/06

Notary Public

  
Lynn A Royer



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:

Applicant: Rizzoni et al.

Our. Ref.: OSU 1159-148

Serial No.: 10/092,031

Filing Date: March 5, 2002

Entitled: ENGINE CONTROL USING TORQUE ESTIMATION

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

RECEIVED

APR 01 2004

TECHNOLOGY CENTER R3700

CERTIFICATE OF MAILING UNDER 37 CFR §1.8 (a)

Date of Deposit: 03/25/04

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail in an envelope addressed to:  
Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

*Sheri L. Burke*  
Sheri L. Burke

STATEMENT IN SUPPORT OF PETITION TO  
CORRECT INVENTORSHIP UNDER 37 C.F.R. §1.48(a)

I, Byungho Lee, declare as follows:

- 1) That I am a joint inventor in the above referenced patent application;
- 2) That after the filing of the instant application, a thorough review of inventorship in relation to the pending claims revealed that I am a joint inventor of the subject matter claimed in the instant application;
- 3) That this error was discovered after the filing date of the instant application;
- 4) That this error occurred without any deceptive intent on my part; and
- 7) That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements

and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Further Declarant sayeth not.

Date 3/1/04

  
Byungho Lee